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GPHY 111N.01 Introduction to Physical Geography

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GPHY 111N - Introduction to Physical Geography

Spring 2018 Course Syllabus

Course Information

Meets: MWF, 1-1:50 PM

Location: Stone Hall 304

Contact Information

Instructor: Rebecca Kranitz

Office: Stone Hall 304C

Email: rebecca.kranitz@umontana.edu

Office Hours:

- Monday 2-4 PM,
- Wednesday 11-12 PM

Teaching Assistant: Andrew Nemecek

Office: Stone Hall 205

Email: andrew.nemecek@umontana.edu

Office Hours:

- Monday 10-11 AM
- Tuesday 2-3 PM
- Wednesday 2-3 PM

Course Description

Physical geography is the study of the spatial distribution of natural phenomena that interact to create a dynamic Earth. In this course, you will learn about processes occurring in the four spheres of Earth – the atmosphere, hydrosphere, lithosphere, and biosphere – that influence the environments in which we live. As such, the concepts and skills you learn in this class will be extremely applicable to your life because physical geography affects you each and every day.

Physical geography helps transform abstract spaces to meaningful places. Many of you have preferences on your ideal place to live: a cabin in the mountains, a cottage on the Pacific coast, or a ranch in the high plains. Why do you prefer some places over others? Why are these places so different? The study of physical geography informs you on the physical processes that create spatial variation between places across the world.

This introductory course functions to provide students with a solid foundation in the most important physical geography concepts, including: weather, climate, seasons, water resources, plate tectonics, weathering, erosion, and ecosystems. You will learn about earthquakes, volcanoes, avalanches, glaciers, mountains, beaches, lakes, and extreme weather. You will leave this course with an increased understanding of how our lives are so closely tied to the physical landscape.

Course Goals

- Students will define basic terminology used to describe physical processes and the landscape.
- Students will recognize the spatial distribution of landscapes and relate these differences to variations in weather and climate.
- Students will reflect on how physical geography affects their daily lives and career by completing journal entries.
- Students will construct and analyze a weather record for Missoula, MT and Cutbank, MT using Microsoft Excel.

Textbook

Geosystems Core, 1st Edition

Authors: Robert W. Christopherson, Stephen Cunha, Charles E. Thomson

ISBN: 978-0321834744

Purchasing the textbook is optional to students. Portions of lectures will be based on text materials, while some lectures will cover topics not included in the text.

Examinations will only cover topics included in lecture PowerPoints. All PowerPoints will be made available to students prior to all examinations.

Options:

- Purchase binder version from the UM Bookstore (\$79.90)
- Purchase ebook through Pearson (\$30.99)
<http://www.mypearsonstore.com/bookstore/geosystems-core-subscription-0134142861>
- Purchase used copy online (Amazon, Barnes & Noble)

Course Policies

Specific course policies are in place to minimize disruptions during class lectures so all students have an equal opportunity to succeed.

- Attendance is optional, though a sign in sheet will be passed around each class. *Further explanation of the attendance policy is found in a following section. Please review the exact details of the attendance policy.*
- Late arrival/early departure is not permitted. If you come to class, sign in, and then leave early, your name will be crossed off the sign in sheet.
- Cell phones are not permitted. Please refrain from using your phone during class.
- Computers are not permitted. You may not use computers in this course for any reason, including taking notes.
- Try your best to avoid eating in class. If you must eat, please do it quietly. Crinkling wrappers are very distracting.

Important Dates and Deadlines

- February 9, 2018 – Last Day to Add/Drop Classes with No Fee
- February 19, 2018 – No Classes
- March 26-30, 2018 – Spring Break
- May 4, 2018 – Last Day of Classes
- May 8, 2018 – Final Exam, Stone Hall 304

Academic Misconduct

Academic misconduct is taken very seriously, and the course instructor will not hesitate to investigate and discipline any student suspected of violating the following criteria:

- Plagiarism of any kind
- Copying material from another student or from the internet during an exam
- Signing another student's name on the sign in sheet
- Disclosing exam content during or after you have taken the exam
- Removing exam material from the classroom or instructor's office
- Using electronics during examinations
- Causing repeated disruptions during class lectures

If a student is caught violating these criteria, the department chair and dean will be notified to determine proper disciplinary action.

Disability Modifications

Every student enrolled in this course will have an equal opportunity to succeed. If you believe you have a disability that will hinder your performance in this class, please contact Disability Services to create a plan that ensures proper accommodation of your needs. All documentation from Disability Services must be provided to the course instructor.

Some students may wish to request time-and-a-half (75 minutes) to take exams with Disability Services. If you are a student that will make use of this accommodation, you must set this up BEFORE the exam is administered. This means that you cannot show up on exam day without prior confirmation from the course instructor and Disability Services that you requested extra time. When taking an exam with Disability Services, you must take the exam on the same day it was administered in class.

Disability Services can be accessed at any point during the semester.

Disability Services for Students

Lommasson Center 154
Phone: (406) 243-2243

Moodle

Moodle is an online learning system that gives you access to course materials at all times. Moodle will be utilized in this course in a variety of ways. The course syllabus and PowerPoint lectures will be posted, and you will submit your homework assignments to a Moodle dropbox. If you have difficulty accessing the course Moodle site, please inform the course instructor immediately.

There are strict requirements that must be followed to properly submit your homework to a Moodle dropbox. The only acceptable file formats are **.doc** and **.pdf** only. Files created using the Mac word processor, Pages, produce files in an unreadable format. If you work with a Mac computer and do not have Microsoft Office, you are advised to save and submit homework assignments using a computer on campus. If you submit an unreadable file, you will not be able to resubmit at a later date.

Moodle dropboxes will close exactly at 8 PM on the assignment due date. You are advised to not wait until the last minute to submit your homework. Moodle has been known to freeze and glitch. If the dropbox closes before you submit your assignment, you will not be able to resubmit.

Assignments

All assignment due dates are listed on the course schedule. All assignments, except in-class assignments, must be submitted to a Moodle dropbox. **Late assignments will not be accepted under any circumstances.**

Homework: Two homework assignments will be given over the course of the semester. All assignments must be submitted to a Moodle dropbox in a **.doc** or **.pdf** file format. Homework assignments will be due at 8 PM to a Moodle dropbox on the specified due date.

Semester Long Project: For the semester long project, you will create a climate record for Missoula, MT and Cutbank, MT. This record will span the months of February, March, and April. You will run simple calculations on your climate data to determine where the spring 2018 season stands in comparison to past years. For each day of class (M,W,F), you will record measurements of: (1) High temperature; (2) Low temperature; (3) Precipitation total. You will base these measurements on data reported by NOAA. You will be provided with data tables and the exact websites where you can access this data. You will need to use Microsoft Excel to complete this project. If you do not have Microsoft Excel on your computer, you can use a computer in the school library. If you have not used Excel before, do not worry. We will complete examples in class and you will be provided with detailed directions. After completing your analyses, you will apply your knowledge to answer questions on various other locations. For this project, you must comply with formatting requirements, and to ensure there is little confusion, you will complete and submit a draft table to Moodle for feedback prior to submitting the final project. This draft will count as one of your homework assignments.

In-Class Assignments: Multiple in-class assignments will be given over the course of the semester. Two (10-point) in-class assignments are announced, and the dates are listed on the syllabus. The rest will be short 5-10 minute journaling activities administered once a week at some point during a class lecture. There will be 12 journal assignments in total. There will be no right or wrong answer to journal entries, rather, you will be asked to reflect on a concept and apply it to your daily life. Each journal activity will be worth 2 points, and answers should be well-developed and provide supporting evidence. At the end of the semester, the two lowest journal entry grades will be dropped, meaning that only 10 journal entries will count towards your grade. To complete in-class assignments, you must be present in class. Make ups will not be permitted for in-class assignments. In total, in-class assignments will be worth 40 points. Your point total will be converted to a percentage out of 100%.

Exams

In total, three exams will be given during this course. Two exams will take place during the semester, and one exam will take place during finals week. Exam dates are firm and will not be changed for any reason. The final exam will be cumulative. If you miss an exam, make-up exams will not be administered unless you can provide official documentation to verify your absence was due to one of the following: (1) Illness; (2) Death in the family; (3) Inability to make it to class due automotive problems or loss of childcare. If you have a prior commitment on an exam day, you must contact the instructor at least **two weeks prior** to the missed exam to schedule a make-up. You will be required to bring a **Red Scantron** to each exam. Scantrons must be filled in with pencils. You will need to list your 790# on the scantron.

Attendance

Attendance is **optional**. However, attendance will serve as your only opportunity to receive **extra credit** in this course. If you miss **three or less** classes, you will receive an extra 5 points on your final exam. If you miss more than three classes, you will not receive extra credit, though your final grade will not be penalized in any way.

Note: To get credit for *in-class activities*, you must be present in class. You will not be permitted to make-up an in-class assignment unless you can provide official documentation to verify your absence was due to one of the following: (1) Illness; (2) Death in the family; (3) Inability to make it to class due automotive problems or loss of childcare.

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Final Grade Components

Activity	Percentage of Grade
Exams	40%
Semester Long Project	30%
Homework	10%
In-Class Activities	20%

Grade Breakdown

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
93.3-100%	90-93.2%	86.7-89.9%	83.3-86.6%	80-83.2%	76.7-79.9%	73.3-76.6%	70-73.2%	66.7-69.9%	63.3-66.6%	60-63.2%	<60%

Schedule

This schedule is tentative and is subject to change over the course of the semester. Exam dates will not change under any circumstances. Please refer to Moodle for the most updated version of the course schedule.

Week	Date	Topic	DUE	Text Chapter
1	1/22/2018	First Day of Class Review Syllabus What is Physical Geography?		Intro
	1/24/2018	Earth Locations & Time		Intro
	1/26/2018	Maps & Cartography		Intro
2	1/29/2018	Solar Energy and Seasons	Homework 1: Survey Due to Moodle Dropbox @ 8 PM	Chapter 1
	1/31/2018	Guest Lecture - Rick Graetz "Crown of the Continent"		Supplementary
	2/2/2018	The Atmosphere: Composition, Structure, and Function		Chapter 1
3	2/5/2018	Energy in the Atmosphere		Chapter 2
	2/7/2018	Global Temperatures		Chapter 2
	2/9/2018	Atmospheric Circulation		Chapter 3
4	2/12/2018	Oceanic Circulation		Chapter 3

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	2/14/2018	Water and Weather		Chapter 4
	2/16/2018	Weather Events		Chapter 4
	2/19/2018	<i>NO CLASS - President's Day</i>		
	2/21/2018	Montana Weather		Supplementary
5	2/23/2018	In-Class Activity: Interpreting Weather Maps	In-Class Activity: Due at the end of class	
	2/26/2018	Exam 1		
6	2/28/2018	Water Resources		Chapter 5
	3/2/2018	Water Scarcity		Chapter 5
	3/5/2018	Global Climate Systems		Chapter 6
7	3/7/2018	<i>Introduce Semester Long Project</i> Climate Change		Chapter 7
	3/9/2018	Climate Change		Chapter 7
	3/12/2018	Climate Change		Chapter 7
8	3/14/2018	Tectonics	Homework 2: Final Project Chart Draft Due to Moodle Dropbox @ 8 PM	Chapter 8
	3/16/2018	Earthquakes and Volcanoes		Chapter 8
	3/19/2018	Mountain Building		Chapter 8
9	3/21/2018	Weathering and Karst Landscapes		Chapter 9
	3/23/2018	Mass Movement		Chapter 9
	3/26/2018	<i>NO CLASS - Spring Break</i>		
10	3/28/2018	<i>NO CLASS - Spring Break</i>		
	3/30/2018	<i>NO CLASS - Spring Break</i>		
	4/2/2018	Montana Mountains		Supplementary
11	4/4/2018	River Systems		Chapter 10
	4/6/2018	River Landforms		Chapter 10
	4/9/2018	Exam 2		
12	4/11/2018	Coastal Systems		Chapter 11
	4/13/2018	Wind Processes		Chapter 11
	4/16/2018	Glacial Processes		Chapter 12
13	4/18/2018	Glacial Landscapes		Chapter 12
	4/20/2018	Montana Glaciers		Supplementary
	4/23/2018	The Desert Southwest		Supplementary
14	4/25/2018	In Class Activity: Interpreting Geomorphic Maps	In-Class Activity: Due at the end of class	
	4/27/2018	Ecosystems		Chapter 13
15	4/30/2018	Soils		Chapter 13

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	5/2/2018	Biomes		Chapter 14
	5/4/2018	<i>Last Day of Class</i> <i>Final Exam Review</i>	Semester Long Project: Due to Moodle Dropbox @ 8 PM	
	5/8/2018	Final Exam - 3:20-5:20 PM, Stone Hall 304		